Project Category: Cross-Ecosystems
Project Title: Cross-Boundary Data Integration Workshop II
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Cooperator: Sanjay Pyare, Spatial Ecosystem Analysis Lab, University of Alaska Southeast, sanjay.pyare@uas.alaska.edu, 907-796-6007. Will assist project leader in coordinating the workshop and oversee data publication.

Partners and project contributions:

- Mike Plivelich, Southeast AK GIS Library, University of Alaska Southeast
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- Sari Saunders & Andy MacKinnon, BC Ministry of Range and Forests
  - Sari.Saunders@gov.bc.ca, 250-751-7165; BC data layer development
- David D'Amore & Frances Biles, Pacific Northwest Research Station
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- Melanie Smith & Nathan Walker, Audubon Alaska
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- Dave Albert and Colin Shanley, The Nature Conservancy
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- Ken Lertzmann and Ana Prohaska, Simon Fraser University
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- Dave Leversee, Sierra Club
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- Rick Abt and Erik Johnson, Forest Service Tongass NF and Alaska Region
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Project Summary: The Alaska Coastal Rainforest Center will lead a 2nd workshop to develop cross-boundary geospatial and climate data sets in support of regional conservation applications in the coastal temperate rainforest zone of Southeast Alaska and British Columbia. This project will continue to facilitate planning sessions and forums on technical development of standardized datasets as well as formalize a platform for coordination of data-exchange and dissemination via the Southeast Alaska GIS Library. In addition, this workshop will establish a plan for future analytical efforts in which cross-boundary datasets are utilized to address critical and regional conservation applications, including connectivity and dispersal, carbon budget allocation, and climate change vulnerabilities.

Project Proposal:
Background and Need: The goals of this project are to continue to coordinate data exchange and data-integration methodologies to address issues of regional conservation importance in southeast Alaska and British Columbia. The specific outcomes are to**:**

1. Provide opportunities for communicating and discussing priorities for the exchange, development and unification of geospatial and climate datasets

2. Facilitate teams and work sessions to develop and rectify datasets into cross-boundary data end products
3. Provide a forum to present and discuss ongoing development of relevant datasets
4. Enhance an existing platform, i.e. Southeast Alaska GIS Library, for data integration and dissemination
5. Develop a plan for future analytical efforts in which cross-boundary datasets are utilized to address critical and regional conservation applications

- In 2010, five organizations, including the Alaska Coastal Rainforest Center (ACRC), received funding from the Wilburforce Foundation for cross boundary data integration in British Columbia and Alaska. ACRC played a leadership role in bringing these teams together for a collaborative effort in managing and solving the issue of cross-border data disparity and knowledge gaps. To accomplish this, ACRC held several conference calls during the winter 2010-2011 and followed with a pilot workshop in February 2011. These organizations were brought together in an introductory meeting to: (1) discuss and assess knowledge of data foundations and gaps, as well as explore strategies and leveraging resources for meeting data needs; (2) provide an overview of recent initiatives in cross-boundary data collaboration and analysis, as well as the scientific goals, benefits and anticipated outcomes of these projects; (3) demonstrate data stewardship options, data portals, and specific collaborative projects (e.g. hydrography); and (4) present a series of end user specific application models (e.g., adaptation frameworks, biogeographic envelope models). At the workshop, ACRC facilitated discussions of data and data needs within key sub-disciplines such as Forestry, Hypsography, Biogeography & Habitat, Lithology and Hydrography; jump-started organization of expert teams with both Canadian and U.S. members to conduct data inventories and evaluate data for standardization; and discussed requirements of these data for trans-boundary, conservation and resource-management analysis. Following this initial workshop, teams made progress on inventories and data layer development but these efforts have primarily been coordinated using distance technology. The follow-up effort in this proposal will be a 3-day work session to provide a pivotal and face-to-face opportunity to present and make direct progress on data issues for future transboundary analyses and applications.

To be explicit: this project provides an avenue for data users and managers across the range of the NPLCC to come together to meet common underlying needs in a relatively short time frame for broader conservation goals. This work is specifically tied to large-scale management, sustainable development, and problem solving across borders, through production or reconfiguration of critical geospatial and climate databases. Through production of common datasets, establishing a data-steward role at the Southeast Alaska GIS Library, and establishing professional linkages within and among the north-temperate rainforest zone of U.S. and Canada, landscape assessment efforts, decision-support tools, and natural resource management efforts will be more productive, have greater impacts and lead to broader implications for regional conservation.

Objectives: We will serve the greater conservation and management community of the NPLCC through completion of the following objectives:

- Providing accessible and interpretable geospatial and climatic data layers for the coastal temperate rainforest biome from approximately Cape Caution, BC north through northern Southeast Alaska.
- Providing interpreted, quantitative assessments of the similarities and differences in coastal temperate rainforest structure and composition derived from the Southeast Alaska and BC landscapes independently *versus* from the trans-boundary dataset.
- Providing the basis for end-user applications of cross-boundary data, including broad-scale analysis efforts, decision support tools in resource conservation, and climate vulnerability and resilience assessments involving biogeographic envelope models.

Methods:

- The 3-day workshop will be held at the University of Alaska Southeast campus in Juneau Alaska.
- Planning conference calls and distance technology will be used to scope for and organize workshop scheduling.
- In advance of the workshop, data sets will be acquired, exchanged, evaluated, cross-walked, standardized into a single coordinate system (e.g., NAD83 Albers), and merged to form cross-boundary base layers by the various workgroups established in the first workshop. In addition, for forest datasets, statistical analysis and summary of structural and compositional attributes will be conducted in advance of the workshop by the forest-data workgroup.
- At the workshop, we plan to gather to evaluate draft cross-boundary products to date, identify products that are incomplete or require enhancement, and distribute additional data as needed.
- Interim and long-term data stewardship and dissemination will be facilitated by resources of the Southeast Alaska GIS Library. Existing spatial data infrastructure and resources will be contributed to the project. Metadata content will be provided by various workgroups to the Library Coordinator for publication.
- Outreach, education, notes and other supporting materials will be posted to the Alaska Coastal Rainforest Center website. Center staff will contribute time to outreach activities.

Geographic Extent: The geographic extent of this project is Southeast Alaska and British Columbia.

Timeline of Schedules, Products and Outcomes:

Spring 2011: Expert groups complete task list for each data layer and end-user products identified in pilot Feb 2011 workshop
Summer 2011: Review and improve data layers and draft modeling products
Fall 2011: Implement Cross-boundary Data Integration Workshop II (this proposal)

Winter 2011: Finalize data layers; present modeling efforts; house data layers and GIS products
June 2012: Project completion and submission of final report

Budget:
$34,623
Please refer to attached spreadsheet for budget detail. UAS is a partner in the Pacific Northwest Cooperative Ecosystems Studies Unit (PNW CESU).

Disclaimer regarding Data Sharing: No known restrictions on sharing of the data expected.